

FP = 8/7/1999

PATENT  
450106-02645

### IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

#### Listing of Claims

1. (currently amended) A transmitting apparatus for transmitting data to a receiving apparatus, comprising:

receiving means for receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

controlling means for improving the resolution in at least one ~~controlling the resolutions in at least two directions of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data~~ transmitted to the receiving apparatus and deteriorating the resolution in another one or more of the temporal direction, the spatial direction and the level direction corresponding to the control information containing the particular point of the data; and

transmitting means for transmitting the data, of which the resolutions ~~in at least two directions~~ have been controlled corresponding to the control information, to the receiving apparatus.

2. (original) The transmitting apparatus as set forth in claim 1,

wherein said controlling means controls the resolutions in the temporal direction and the spatial direction of the picture data transmitted to the receiving apparatus corresponding to the control information.

3. (currently amended) The transmitting apparatus as set forth in ~~claim 1~~ claim 2,

wherein said transmitting means transmits the data to the receiving apparatus through a predetermined transmission path at a predetermined transmission rate, and

wherein said controlling means controls the resolutions of the data corresponding to the control information so that the transmission rate of the data does not exceed the predetermined transmission rate.

4. (canceled)

5. (currently amended) The transmitting apparatus as set forth in ~~claim 4~~ claim 3,

wherein said transmitting means transmits picture data to the receiving apparatus through a predetermined transmission path at a predetermined transmission rate,

wherein the receiving apparatus displays the picture data transmitted from said transmitting means,

wherein the control information contains a temporal and special position of the picture data displayed by the receiving apparatus, and

wherein said controlling means improves the spatial resolution of a considered area that contains the temporal and spatial position of the picture data and deteriorates the temporal resolution corresponding to the control information so that the transmission rate of the picture data does not exceed the predetermined transmission rate.

6. (original) The transmitting apparatus as set forth in claim 5, further comprising:

background picture data extracting means for extracting background picture data from the picture data transmitted to the receiving apparatus,

wherein said controlling means improves the spatial resolution of the background picture data when the temporal and spatial position contained in the control information represents the background picture data.

7. (original) The transmitting apparatus as set forth in claim 6, further comprising:

object picture data extracting means for extracting object picture data from the picture data corresponding to the difference between the picture data and the background picture data transmitted to the receiving apparatus ,

wherein said controlling means improves the spatial resolution of the object picture data when the temporal and spatial position contained in the control information represents the object picture data.

8. (original) The transmitting apparatus as set forth in claim 7, further comprising:

combining means for combining the background picture data and the object picture as combined data,

wherein said transmitting means transmits the combined data to the receiving apparatus.

9. (original) The transmitting apparatus as set forth in claim 1, further comprising:

inputting means for inputting the data.

10. (original) The transmitting apparatus as set forth in claim 9,  
wherein the data is picture data, and  
wherein said inputting means is photographing means for photographing a picture  
and outputting the picture data.

11. (original) The transmitting apparatus as set forth in claim 1,  
wherein the transmitting apparatus is a portable telephone.]

12. (original) The transmitting apparatus as set forth in claim 1, further comprising:  
analyzing means for analyzing the preferences of the user of the receiving  
apparatus,  
wherein said controlling means controls the resolutions of the data corresponding  
to the analyzed result of said analyzing means.

13. (original) The transmitting apparatus as set forth in claim 12,  
wherein the receiving apparatus outputs the data transmitted from said  
transmitting means,  
wherein said controlling means contains a considered point of the data that is  
output to the receiving apparatus, and  
wherein said analyzing means analyzes the preferences of the user corresponding  
to the considered point.

14. (original) The transmitting apparatus as set forth in claim 13,

wherein said analyzing means has:

feature amount extracting means for extracting a feature amount of a considered area that contains a considered point of the data; and

area detecting means for detecting a predetermined area corresponding to the preference of the user from the data corresponding to the feature amount, and

wherein said controlling means controls the resolutions of the predetermined area of the data.

15. (original) The transmitting apparatus as set forth in claim 14, further comprising:

histogram storing means for storing a histogram of the <sup>feature</sup>~~future~~ amount,

wherein said area detecting means detects the predetermined area corresponding to the histogram.

16. (original) The transmitting apparatus as set forth in claim 14,

wherein said transmitting means transmits picture data to the receiving apparatus through a predetermined transmission path ~~at a predetermined transmission rate.~~

wherein the receiving apparatus displays the picture data transmitted from said transmitting means, and

wherein said controlling means improves the spatial resolution of the predetermined area of the picture data and deteriorates the temporal resolution so that the transmission rate of the picture data does not exceed the predetermined transmission rate. )

17. (original) The transmitting apparatus as set forth in claim 15,

wherein said area detecting means detects an area having the same as or similar to the feature amount with the largest frequency of the histogram as the predetermined area.

18. (original) The transmitting apparatus as set forth in claim 17,

wherein said transmitting means transmits picture data to the receiving apparatus through a predetermined transmission path at a predetermined transmission rate,

wherein the receiving apparatus displays the picture data transmitted from said transmitting means, and

wherein said controlling means improves the spatial resolution of the predetermined area of the picture data and deteriorates the temporal resolution so that the transmission rate of the picture data does not exceed the predetermined transmission rate.

19. (original) The transmitting apparatus as set forth in claim 16,

wherein said feature amount extracting means extracts at least one of motion information, depth information, position information, color information, and shape information of a considered area that contains the considered point of the picture data as the feature amount.

20. (original) The transmitting apparatus as set forth in claim 19,

wherein said feature amount extracting means extracts a plurality of motion information, depth information, position information, color information, and shape information of a considered area that contains the considered point of the picture data as a plurality of feature amounts, and generates a feature amount vector composed of the plurality of feature amounts.

21. (original) The transmitting apparatus as set forth in claim 13,

wherein said analyzing means has:

categorizing means for categorizing the data corresponding to a considered area that contains the considered point of the data,

wherein said analyzing means analyzes the preference of the user corresponding to the analyzed result of said categorizing means.

22-37 (canceled)

38. (original) The transmitting apparatus as set forth in claim 2,

wherein the picture data is object encoded.

39. (currently amended) A receiving apparatus for receiving data transmitted from a transmitting apparatus, comprising:

outputting means for outputting the received data;

transmitting means for transmitting control information containing a particular point of the data, which has been output, to the transmitting apparatus that improves the resolution in at least one ~~controls resolutions in at least two directions~~ of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data and deteriorates the resolution in another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information; and

receiving means for receiving the data transmitted from the transmitting apparatus, the resolutions of the data having been controlled corresponding to the control information. ~~in at least two directions of the data; and~~  
~~outputting means for outputting the data received by said receiving means.~~

40. (original) The receiving apparatus as set forth in claim 39,  
wherein the data is picture data, and  
wherein said outputting means is displaying means for displaying the picture data.

41. (original) The receiving apparatus as set forth in claim 40, further comprising:  
considered point detecting means for detecting a considered point of the user from  
the picture data displayed by said displaying means,  
wherein said transmitting means transmits the considered point as the control  
information to the transmitting apparatus.

42. (original) The receiving apparatus as set forth in claim 41,  
wherein said considered point detecting means detects the position designated by  
said designating means as the considered point.

43. (original) The receiving apparatus as set forth in claim 40, further comprising:  
picture data storing means for storing picture data received by said receiving  
means; and



controlling means for causing picture data stored in said picture data storing means to be displayed by said displaying means when the resolutions of the picture data stored in said picture data storing means are higher than the resolutions of the picture data received by said receiving means.

44. (original) The receiving apparatus as set forth in claim 43,

wherein said controlling means causes the picture data received by said receiving means to be overwritten to said picture data storing means the picture data received by said receiving means to be displayed by said displaying means when the resolutions of the picture data stored in said picture data storing means are lower than the resolutions of the picture data received by said receiving means, the picture data stored in said picture data storing means corresponding to the picture data received by said receiving means.

45 (canceled)

46. (currently amended) A transmitting and receiving apparatus having a transmitting apparatus for transmitting data and a receiving apparatus for receiving the data,

wherein the transmitting apparatus comprises:

~~control information~~-receiving means for receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

controlling means for improving ~~controlling the resolution~~ resolutions in at least one two ~~directions~~ of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data transmitted to the receiving apparatus

and deteriorating the resolution in at least one of the rest of those directions corresponding to the control information containing the particular point of the data; and

~~data-transmitting means for transmitting the data of which the resolutions in at least two directions have been controlled corresponding to the control information to the receiving apparatus, and~~

wherein the receiving apparatus comprises:

outputting means for outputting the received data;

~~control information-transmitting means for transmitting the control information containing a particular point of the data, which has been output, to the transmitting apparatus that improves the resolution in at least one of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data and deteriorates the resolution in another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information; and~~

~~data-receiving means for receiving the data transmitted from the transmitting apparatus, the resolutions of the data having been controlled corresponding to the control information in at least two directions of the data; and~~

~~outputting means for outputting the data received by said data receiving means.~~

X 47. (original) A transmitting apparatus for transmitting data to a receiving apparatus, /  
comprising:

receiving means for receiving control information transmitted from the receiving apparatus;

categorizing means for categorizing the data corresponding to the control information; and

transmitting means for transmitting the data to the receiving apparatus corresponding to the categorized result of the data.

48. (original) The transmitting apparatus as set forth in claim 47,

wherein the data is picture data,

wherein the receiving apparatus displays the picture data transmitted from said transmitting means,

wherein the control information contains a considered point of picture data  
displayed by the receiving apparatus, and

wherein said categorizing means categorizes the picture data corresponding to a considered area that contains the considered point of the picture data.

49-64 (canceled)

65. (original) The transmitting apparatus as set forth in claim 48,

wherein the picture data is object encoded.

(1) 66. (currently amended) A transmitting method for transmitting data to a receiving apparatus, comprising the steps of:

receiving control information transmitted from the receiving apparatus, the control  
information containing a particular point of the data;

improving the resolution ~~controlling the resolutions~~ in at least ~~two one~~ directions of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data transmitted to the receiving apparatus and deteriorating the resolution in at least another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information containing the particular point of the data; and

transmitting the data of which the resolutions ~~in at least two directions~~ have been controlled corresponding to the control information to the receiving apparatus.

(29) 67. (currently amended) A receiving method for receiving data transmitted from a transmitting apparatus, comprising the steps of:

outputting the received data;

transmitting control information containing a particular point of the data, which has been output, to the transmitting apparatus that ~~controls resolutions in at least two directions~~ improves the resolution in at least one of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data and deteriorates the resolution in at least another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information; and

receiving the data transmitted from the transmitting apparatus, the resolutions of the data having been controlled corresponding to the control information. ~~in at least two directions of the data;~~ and

~~outputting the data received at the receiving step.~~

68. (currently amended) A transmitting and receiving method having a process of a transmitting apparatus for transmitting data and a process of a receiving apparatus for receiving the data,

wherein the process of the transmitting apparatus comprises the steps of:

receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

~~controlling improving resolution in at least one the resolutions in at least two~~  
~~directions of the temporal direction, the spatial direction, and the level direction of a particular~~  
area containing the particular point of the data transmitted to the receiving apparatus and  
deteriorating the resolution in another one or more of the temporal direction, the spatial direction,  
and the level direction corresponding to the control information containing the particular point of  
the data; and

transmitting the data, of which the resolutions ~~in at least two directions~~ have been controlled corresponding to the control information, to the receiving apparatus, and

wherein the process of the receiving apparatus comprises the steps of:

outputting the received data;

transmitting ~~the control information~~ containing a particular point of the data,  
which has been output, to the transmitting apparatus that improves the resolution in at least one  
of the temporal direction, the spatial direction, and the level direction of a particular area  
containing the particular point of the data and deteriorates the resolution in at least another one or  
more of the temporal direction, the spatial direction, and the level direction corresponding to the  
control information; and

receiving the data transmitted from the transmitting apparatus, the resolutions of the data having been controlled corresponding to the control information, ~~in at least two directions of the data;~~ and  
~~outputting the data received at the data receiving step.~~

69. (original) A transmitting method for transmitting data to a receiving apparatus, comprising the steps of:

receiving control information transmitted from the receiving apparatus;  
categorizing the data corresponding to the control information; and  
transmitting the data to the receiving apparatus corresponding to the categorized result of the data.

70. (currently amended) A record medium for recording a program that causes a computer to perform a transmitting process for transmitting data to a receiving apparatus, the transmitting process comprising the steps of:

receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;  
~~controlling improving the resolution in at least one~~ ~~the resolutions in at least two~~  
~~directions of the temporal direction, the spatial direction, and the level direction of a particular~~  
~~area containing the particular point of the data transmitted to the receiving apparatus and~~  
~~deteriorating the resolution in another one or more of the temporal direction, the spatial direction,~~  
~~and the level direction corresponding to the control information containing the particular point of~~  
~~the data;~~ and

transmitting the data, of which the resolutions ~~in at least two directions~~ have been controlled corresponding to the control information, to the receiving apparatus.

71. (currently amended) A record medium for recording a program that causes a computer to perform a receiving process for receiving data transmitted from a transmitting apparatus, the receiving process comprising the steps of:

outputting the received data;

transmitting control information containing a particular point of the data, which has been output, to the transmitting apparatus that controls resolutions improves resolution in at least one two directions of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data and deteriorates the resolution in another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information; and

receiving the data transmitted from the transmitting apparatus, the resolutions of the data having been controlled corresponding to the control information, in at least two directions of the data; and

outputting the data received at the receiving step.

72. (currently amended) A record medium for recording a program that causes a computer to perform a transmitting process of a transmitting apparatus for transmitting data and a receiving process of a receiving apparatus for receiving the data,

wherein the transmitting process of the transmitting apparatus comprises the steps of:

receiving control information transmitted from the receiving apparatus, the control information containing a particular point of data;

improving resolution in at least one ~~controlling the resolutions in at least two~~  
~~directions of the temporal direction, the spatial direction, and the level direction of a particular~~  
area containing the particular point of the data transmitted to the receiving apparatus and  
deteriorating the resolution of another one or more of the temporal direction, the spatial  
direction, and the level direction corresponding to the control information; and

transmitting the data of which the resolutions ~~in at least two directions~~ have been  
controlled corresponding to the control information to the receiving apparatus, and

wherein the receiving process of the receiving apparatus comprises the steps of:  
outputting the received data;

transmitting the control information containing a particular point of the data,  
which has been output, to the transmitting apparatus that improves the resolution in at least one  
of the temporal direction, the spatial direction, and the level direction of a particular area  
containing the particular point of the data and deteriorates the resolution in at least another one or  
more of the temporal direction, the spatial direction, and the level direction corresponding to the  
control information; and

receiving the data transmitted from the transmitting apparatus, the resolutions of  
the data having been controlled corresponding to the control information. ~~in at least two~~  
~~directions of the data; and~~

~~outputting the data received at the data receiving step.~~



73. (original) A record medium for recording a program that causes a computer to perform a transmitting process for transmitting data to a receiving apparatus, the transmitting process comprising the steps of:

receiving control information transmitted from the receiving apparatus;

categorizing the data corresponding to the control information; and

transmitting the data to the receiving apparatus corresponding to the categorized result of the data.

(1)

74. (currently amended) A signal for containing a program that causes a computer to perform a transmitting process for transmitting data to a receiving apparatus, the transmitting process comprising the steps of:

receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

improving the resolution in at least one ~~controlling the resolutions in at least two~~ ~~directions of the temporal direction, the spatial direction, and the level direction of a particular~~ area containing the particular point of the data transmitted to the receiving apparatus and deteriorating the resolution another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information containing the particular point of the data; and

transmitting the data of which the resolutions ~~in at least two directions~~ have been controlled corresponding to the control information to the receiving apparatus.

(39)

75. (currently amended) A signal for containing a program that causes a computer to perform a receiving process for receiving data transmitted from a transmitting apparatus, the receiving process comprising the steps of:

outputting the received data;

transmitting control information containing a particular point of the data, which has been output, to the transmitting apparatus that improves the resolution in at least one of controls resolutions in at least two directions of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data and deteriorates the resolution in another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information; and

receiving the data transmitted from the transmitting apparatus, the resolutions of the data having been controlled corresponding to the control information, in at least two directions of the data; and

outputting the data received at the receiving step.

76. (currently amended) A signal for containing a program that causes a computer to perform a transmitting process of a transmitting apparatus for transmitting data and a receiving process of a receiving apparatus for receiving the data,

wherein the transmitting process of the transmitting apparatus comprises the steps of:

receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

~~improving the resolution in at least one~~ controlling the resolutions in at least two  
~~directions of the temporal direction, the spatial direction, and the level direction of a particular~~  
~~area containing the particular point of the data transmitted to the receiving apparatus and~~  
~~deteriorating the resolution in another one or more of the temporal direction, the spatial direction,~~  
~~and the level direction~~ corresponding to the control information containing the particular point of  
the data; and

transmitting the data, of which the resolutions ~~in at least two directions~~ have been  
controlled corresponding to the control information, to the receiving apparatus, and

wherein the receiving process of the receiving apparatus comprises the steps of:

outputting the received data;

~~transmitting the control information~~ containing a particular point of the data,  
which has been output, to the transmitting apparatus that improves the resolution in at least one  
of the temporal direction, the spatial direction, and the level direction of a particular area  
containing the particular point of the data and deteriorates the resolution in another one or more  
of the temporal direction, the spatial direction, and the level direction corresponding to the  
control information; and

receiving the data transmitted from the transmitting apparatus, the resolutions of  
the data having been controlled corresponding to the control information. ~~in at least two~~  
~~directions of the data; and~~

~~outputting the data received at the data receiving step.~~

77. (original) A signal for containing a program that causes a computer to perform a transmitting process for transmitting data to a receiving apparatus, the transmitting process comprising the steps of:

receiving control information transmitted from the receiving apparatus;

categorizing the data corresponding to the control information; and

transmitting the data to the receiving apparatus corresponding to the categorized result of the data.

78. (new) A mobile transmitting apparatus for transmitting data to a receiving apparatus, comprising:

receiving means for receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

controlling means for improving the resolution in at least one of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data transmitted to the receiving apparatus and deteriorating the resolution in another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information containing the particular point of the data; and

transmitting means for transmitting the data of which the resolutions have been controlled corresponding to the control information in the receiving apparatus.

79. (new) A mobile transmitting apparatus for transmitting data to a receiving apparatus, comprising:

receiving means for receiving control information transmitted from the receiving apparatus, the control information containing a particular point of the data;

controlling means for improving the resolution in at least one of the temporal direction, the spatial direction, and the level direction of a particular area containing the particular point of the data transmitted to the receiving apparatus and deteriorating the resolution in another one or more of the temporal direction, the spatial direction, and the level direction corresponding to the control information containing the particular point of the data; and

transmitting means for prioritizingly transmitting the data of the particular area of which the resolutions have been controlled corresponding to the control information in the receiving apparatus.